Please amend the claims as follows:

CLAIMS

1. – 30.   CANCELED.

31.   (CURRENTLY AMENDED)   A virtualization system for a host computer having at least one host processor and system resources including memory divided into most privileged system memory and less privileged user memory, the system comprising:

virtualization software that operates in said less privileged user memory and divides said host computer into a plurality of virtual partitions including at least one user guest partition and at least one system partition, said at least one user guest partition providing a virtualization environment for at least one guest operating system, and said at least one system partition maintaining a resource database for use in managing use of said at least one host processor and said system resources;

at least one monitor that operates in said most privileged system memory and maintains guest applications in said at least one guest partition within memory space allocated by said at least one system partition to said at least one guest partition; and

a context switch between said at least one monitor and said respective guest and system partitions for controlling multitask processing of software in said partitions on said at least one host processor;

wherein said at least one system partition includes a resource management software application that assigns system resources to respective system and guest partitions and provides an index to the assigned system resource in said resource database;

a memory allocation page map of said resource database is organized according to a tiered page size model including a hierarchy of scales using 2^x as a scaling factor whereby an index page at each tiered page size level may allocate 2^x memory blocks at a size of the next lower tiered page size level; and

~~The virtualization system of claim 30, wherein~~ said resource management software application allocates memory to said respective system and guest partitions by storing a partition descriptor for a desired partition number [G,M,K] in said memory as Mem(G,M,K) = $((G*2^{10}+M)*2^{10}+K)*2^{10}*$(word size), where word size is a power of 2.

32.   (ORIGINAL) The virtualization system of claim 31, wherein the stored partition descriptor is provided to the monitor associated with the partition defined by the partition descriptor whereby said monitor may constrain applications in its partition to the memory defined by said partition descriptor.

33.   The virtualization system of claim ~~30~~ 31, wherein x=10 and wherein a virtual partition number is represented in said memory allocation page map as a 32 bit index (2, 10, 10, 10) into a map of 4k pages that identifies the virtual partition descriptor for the virtual partition with said virtual partition number, where a first bit indicates suballocation in smaller pages and three successive 2^{10} values identify scaled pages.

34. – 47.   CANCELED.

48 - 72.   CANCELED.

73.   (CURRENTLY AMENDED)   A method of managing a plurality of operating system instances on a host computer having at least one host processor and system resources, the method comprising the steps of:

        dividing said host computer into a plurality of virtual partitions including at least one user guest partition and at least one system partition, said at least one user guest partition providing a virtualization environment for at least one guest operating system, and said at least one system partition maintaining a resource database for use in managing use of said at least one host processor and said system resources;

        maintaining guest applications in said at least one guest partition within memory space allocated by said at least one system partition to said at least one guest partition;

        providing a context switch between said respective guest and system partitions for controlling multitask processing of software in said partitions on said at least one host processor;

        organizing a memory allocation page map of said resource database according to a tiered page size model including a hierarchy of scales using 2^x as a scaling factor and an

index page at each tiered page size level allocating 2^x memory blocks at a size of the next lower tiered page size level; and

~~The method of claim 72, further comprising the step of~~ allocating memory to said respective system and guest partitions by storing a partition descriptor for a desired partition number [G,M,K] in said memory as $Mem(G,M,K) = ((G*2^{10} + M)*2^{10} + K)*2^{10}*$(word size), where word size is a power of 2~~;~~

~~wherein said at least one system partition includes a resource management software application that performs the steps of assigning system resources to respective system and guest partitions and providing an index to the assigned system resource in said resource database~~.

74.   (ORIGINAL) The method of claim 73, further comprising the steps of providing the stored partition descriptor to a monitor associated with the partition defined by the partition descriptor and said monitor constraining applications in its partition to the memory defined by said partition descriptor.

75.   (CURRENTLY AMENDED)The method of claim ~~72~~ 73, wherein x=10, further comprising the step of representing a virtual partition number in said memory allocation page map as a 32 bit index (2, 10, 10, 10) into a map of 4k pages that identifies the virtual partition descriptor for the virtual partition with said virtual partition number, where a first bit indicates suballocation in smaller pages and three successive 2^{10} values identify scaled pages.

76. – 86.   CANCELED.